

### INCHANGE SEMICONDUCTOR

### isc N-Channel Mosfet Transistor

## IRFAC32

#### • FEATURES

- Lower Input Capacitance
- Improved Gate Charge
- Extended Safe Operating Area
- Rugged Gate Oxide Technology
- · High speed switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### DESCRITION

- High current ,high speed switching
- Switch mode power supplies
- DC-AC converters for welding equipment and Uninterruptible power supplies and motor Driver.

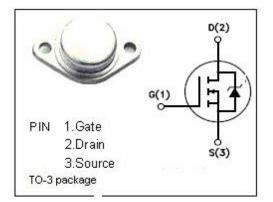
SYMBOL	PARAMETER VALUE		UNIT
V <sub>DSS</sub>	Drain-Source Voltage	600	V
V <sub>GS</sub>	Gate-Source Voltage-Continuous		V
ID	Drain Current-Continuous		А
I <sub>DM</sub>	Drain Current-Single Pluse	in Current-Single Pluse 12.8	
PD	Total Dissipation @T₀=25℃	74	W
TJ	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

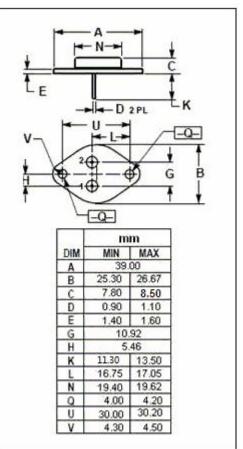
### • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	esistance, Junction to Case 1.67	
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	30	°C/W

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### **ELECTRICAL CHARACTERISTICS**

#### $T_{\text{C}}\text{=}25^{\circ}\!\!\!\!\!\!\mathrm{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	600		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA	2	4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =2.3A		2.7	Ω
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 480V; V <sub>GS</sub> = 0		25	μA
Vsd	Forward On-Voltage	I <sub>S</sub> = 3.2A; V <sub>GS</sub> = 0		1.6	V



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